RESEARCH FUNDING AT

ALBERTA UNIVERSITIES

2000-2001 REPORT

June 2002

UNIVERSITY RESEARCH AND
STRATEGIC INVESTMENTS BRANCH

Alberta
INNOVATION AND SCIENCE

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Introduction
University Research in Alberta

Research conducted at Alberta's universities:

- creates new knowledge that adds to the existing body of understanding;
- disseminates knowledge to inform and enhance learning;
- contributes to the training of highly qualified personnel, including the next generation of university researchers as well as knowledge workers for industry; and
- contributes to the social, cultural and economic well-being of the province and of individual Albertans.

Technology and the economy are changing at a rapid pace. As such, innovation has become a central component to sustaining Alberta's economic competitiveness and acquiring and retaining a high quality of life for Albertans.

University research plays a vital role in the innovation process. Research conducted in Alberta's universities contributes to the search for innovative discoveries that have the potential for far-reaching economic and social implications. It also, through the university educational experience, contributes to the development of people with scientific knowledge and problem-solving skills that can be applied throughout society and a wide range of industries. A key output of a university is its graduates because of the skills and knowledge that they possess.

The cumulative research success of a university, coupled with the building of an institutions' infrastructure, are key determinants in attracting future resources. These resources come in the form of people (quality faculty and students) and financial support. These resources in turn improve the quality of both the institution's research and educational programs.

This report summarizes sponsored research revenues at Alberta Universities. Sponsored research revenues are research revenues that are received outside of the regular university operating grant and include both research grants and research contracts.

Financial Note: The data in this report is provided directly by the universities and is derived from audited financial schedules.

Provincial Support of University Research

Research at Alberta universities is supported in part by the provincial government through Alberta Innovation and Science, the Alberta Science and Research Authority (ASRA), Alberta Learning, and Alberta Infrastructure, as well as through the Alberta Heritage Foundation for Medical Research and the newly established Alberta Ingenuity Fund (Alberta Heritage Foundation for Science and Engineering Research).

Research funding provided by Innovation and Science and ASRA programs does not generally support specific research projects; instead, the majority of these programs fund widely-applicable university research infrastructure which help to build the capacity and capability required to support a broad range of research activities. However, there is a clear link between funding general infrastructure and attracting additional external funding for research activities (i.e., as better infrastructure is put in place, the potential to attract funding for research activities increases). Alberta Infrastructure provides funds for the large capital buildings and related capital infrastructure required for the university research system.

Operating Grant
Alberta Learning provides an operating grant to the universities, which includes funding for teaching, research and administrative activities. It is estimated that up to 40 percent of the operating grant goes directly or indirectly towards supporting research activities. The 2000-2001 university operating grant totalled $463,930,519.

Performance Envelope
The research component of Alberta Learning's Performance Envelope provides additional funding based on the extent to which Alberta universities meet agreed upon research targets. These targets are a subset of the department's Key Performance Indicators (KPIs) which are specifically dedicated to research. This involves comparisons with their respective peer universities and the level of support they received from communities and industries. The amount of the grant is calculated by multiplying the KPI score times a predetermined share of the operating grant. The University of Alberta and the University of Calgary Envelope is based on 20 percent of the operating grant and the University of Lethbridge is based on eight percent. In 2000-2001, the University of Alberta, the University of Calgary, and the University of Lethbridge received $1,147,771 from the research component of the Performance Envelope.

Alberta Science and Research Investments Program (ASRIP)
In 2000-2001, the Intellectual Infrastructure Partnership Program (IIPP) was amalgamated with the former Alberta Science and Research Authority Science and Research Fund to create the Alberta Science and Research Investments Program (ASRIP). This resulted in Alberta researchers having access to a broader pool of funding through a streamlined application process. Funding under this program is available for science and research initiatives under three distinct funding streams: Research Infrastructure, Enabling Research Application and Technology Transfer and Science Awareness and Promotion. In its first competition, the program allocated $18 million to new infrastructure for Alberta's science community. Funding received from this program is reported on a modified cash flow basis in that funds cannot be reported until all partner funding is secured. Table 2 provides a complete listing of proposals approved under the 2000-2001 competition.

Research Equipment Grant to Support Canada Research Chairs
One-time funding of $5 million was provided to Alberta universities to provide matching support for equipment in order to assist them in maximizing opportunities offered through the Canada Research Chairs program and the Canada Foundation for Innovation. Funds were allocated as follows: $2.9 million to the University of Alberta, $1.8 million to the University of Calgary, $210,00 to the University of Lethbridge and $55,010 to Athabasca University.

Research Excellence Envelope (REE)
The Research Excellence Envelope (REE) is designed to help universities remain competitive by providing funds to help attract and retain researchers. In 2000-2001, REE provided $3.5 million to Alberta universities: $1.9 million to the University of Alberta, $1.3 million to the University of Calgary, $210,000 to the University of Lethbridge, and $55,010 to Athabasca University. REE funds complement contributions from the universities and their partners towards the total start-up and development costs of key faculty. Funds are used to purchase or upgrade equipment, adapt laboratory or other space and to help with other costs, such as travel related to research, expensive supplies and support for graduate students or associates involved in the research programs of the targeted researcher.

Coordination of University Research for Synergy and Effectiveness (COURSE)
As the core of the Alberta Energy Research Institute's (AERI) University Research Program, the Coordination of University Research for Synergy and Effectiveness (COURSE) program provides the link between industry and universities to ensure that basic research in strategic areas is funded. COURSE provides funding for fundamental, the stage between basic and applied, energy research. In 2001, the University of Alberta was awarded six contracts for $1 million and the University of Calgary was awarded 13 contracts for $2 million.

Farming for the Future
Through the competitive Farming for the Future Research Grants Program, in 2000-2001 the Alberta Agricultural Research Institute (AARI) provided $2.3 million to fund research projects at three Alberta universities. The University of Alberta received $2.1 million for 64 projects, the University of Calgary received $97,000 for four projects and the University of Lethbridge received $74,000 for one project. A portion of the funding, $1.6 million, was matching grants which leveraged the AARI investment by at least the same amount, or greater, from the private sector.

Alberta Informatics Circle of Research Excellence (iCORE)
The mandate of the Alberta Informatics Circle of Research Excellence (iCORE) is to attract and grow a critical mass of outstanding researchers in the fields of computer science, computer engineering, physics, mathematics and other ICT-related disciplines. Building on existing excellence and strengths in Alberta's universities, iCORE form and supports strong scientific teams in ICT. In 2000-2001, iCORE provided $9 million in support of 95 researchers.

Alberta Heritage Foundation for Medical Research (AHFMR)
Established by the Government of Alberta in 1980, the Alberta Heritage Foundation for Medical Research (AHFMR) supports biomedical and health research at Alberta universities, affiliated institutions, and other medical and technology-related institutions. The AHFMR's support and leadership has resulted in millions of dollars of support to Alberta universities and research hospitals and has enabled Alberta to become one of the top ten medical research centres in North America.

Alberta Ingenuity Fund (Alberta Heritage Foundation for Science and Engineering Research)
Modeled after the Alberta Heritage Foundation for Medical Research, the Alberta Ingenuity Fund was established in 2000 with an endowment fund of $500 million to support a balanced, long-term program of science and engineering research in Alberta. Funding from this source will be reflected in future reports.

Executive Summary of Statistical Analysis

Sponsored research funding to Alberta universities has more than doubled over the past five years to $369 million in 2000-2001. This large increase in funding reflects both:

1. The introduction of new programs and expansion of existing programs, at both the federal and provincial levels, aimed at strategically investing in university research.
2. Increased capacity and capabilities at Alberta universities.

The provincial government has more than tripled its funding for university research over the past five years to $118.1 million, a firm indication of its commitment towards science and innovation.

Federal government funding to Alberta universities has almost doubled over the last five-year period to $131.7 million and should continue to increase as programs such as the Canada Foundation for Innovation and the Canada Research Chairs are reflected in this report. Additionally the expanded budgets of the federal granting councils (Canadian Institutes for Health Research, Natural Sciences and Engineering Research Council and Social Science and Humanities Research Council) will impact the amounts garnered from these sources.

The level of sponsored research funding provided to universities by industry and non-profit sources is an indicator of the relevance and importance of the universities' research effort to the community and business sectors. Industry has demonstrated a commitment to innovation and economic growth by doubling its investment in sponsored research over the past five years to $59.5 million.

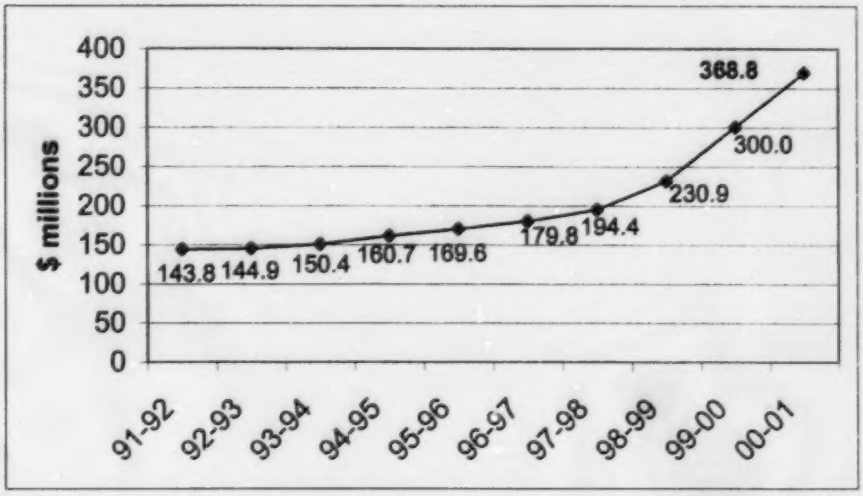
Other indicators of the impacts of university research on industry are the application and transferability of research to business and industry. In 2000-2001, with the help of the Industry Liaison Office at the University of Alberta and University Technologies International Inc. at the University of Calgary, new inventions were disclosed, patents were filed, new agreements were executed and 11 start up companies were formed.

The distribution of total sponsored research funding from all sources follows a fairly consistent historical pattern, with the largest proportion of funding going towards the faculties of medicine and science at both the University of Alberta and Calgary. However, it should be noted that although funding amounts vary by discipline, the intensity of research in faculties is not necessarily commensurate with monetary allocations to faculties. For example, research conducted in social sciences faculties is generally less expensive than in the natural sciences.

The Alberta Heritage Foundation for Medical Research has awarded $171 million over the past five years to Alberta's medical faculties and teaching hospitals, which has enabled Alberta to become one of the top ten medical research centres in North America.

Total Sponsored Research Revenue to Alberta Universities 1991/1992 to 2000/2001

FIGURE 1



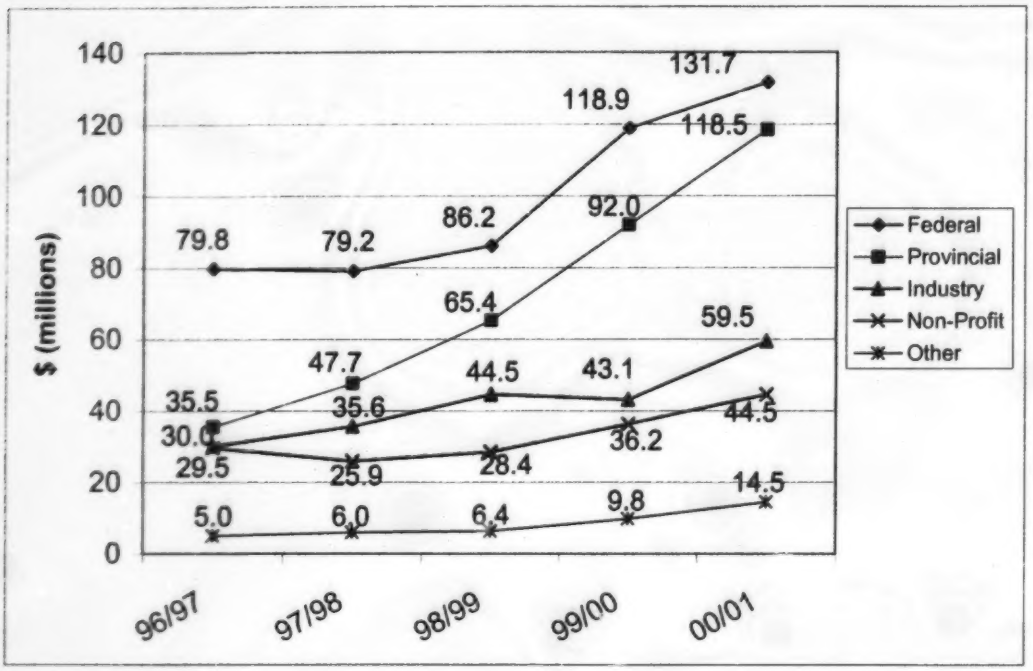
Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the Vice-President, Academic.

- In 2000-2001, Alberta's four universities received $368.8 million in sponsored research funding, a 23 percent increase from the previous year.
- Over the past five years, sponsored research funding has more than doubled with an average growth rate of 17 percent per year.
- In the last five year's Alberta universities have received nearly $1.3 billion in sponsored research funding.

Fiscal Year	Amount of Funding	Increase from previous year
2000-2001	$368.8 million	22.9%
1999-2000	$300.0 million	29.9%
1998-1999	$230.9 million	18.8%
1997-1998	$194.4 million	8.1%
1996-1997	$179.8 million	6.0%

Total Sponsored Research Revenue by Source 1996/1997 to 2000/2001

FIGURE 2A

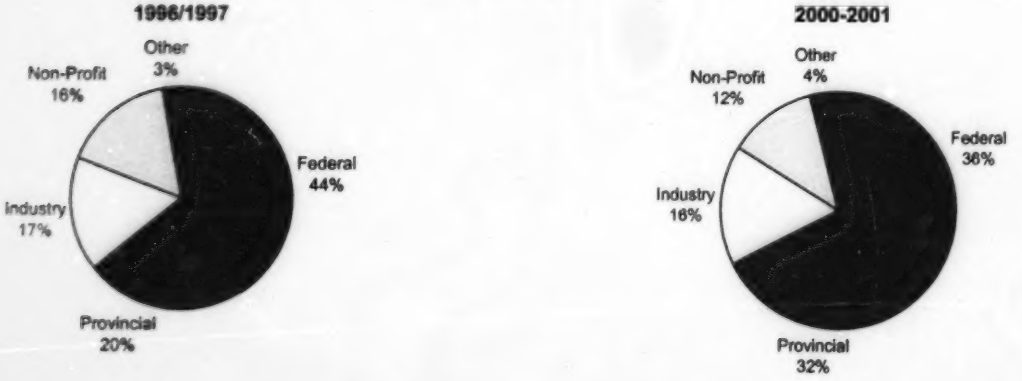


Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the VP, Academic.

- Funding to universities has been steadily increasing from all sources over the past five years. Funding from provincial sources has seen the largest increase from $35.5 million to $118.5 million, an increase of 3.5 times.

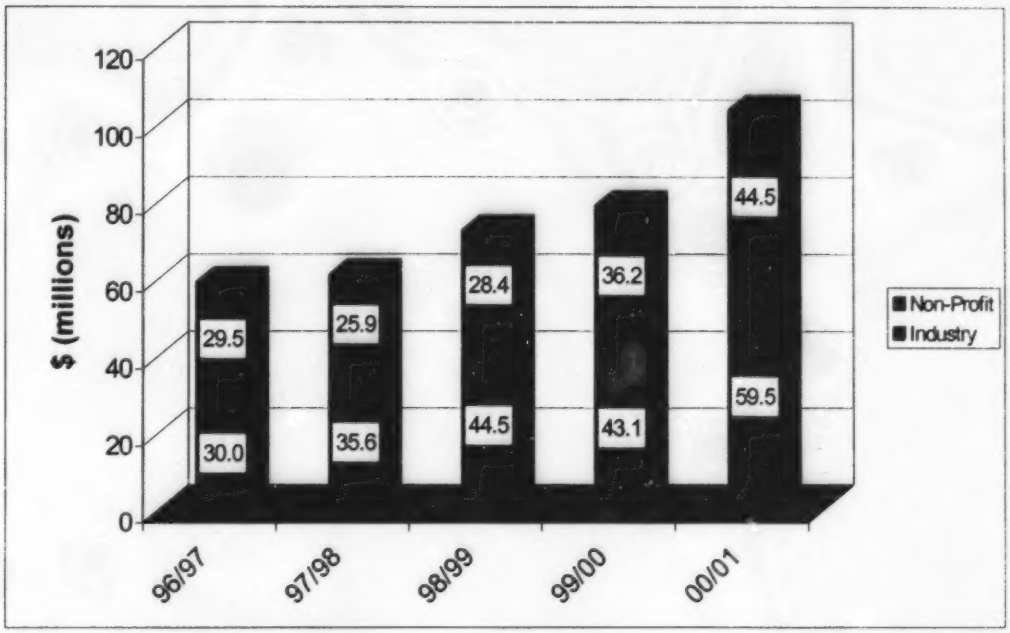
- The following graphs show how funding from various sources has changed as a percentage of total funding over a five-year period. Funding from provincial sources has increased from 20 percent to 32 percent of total sponsored research funding.

FIGURE 2B



Industry and Non-Profit Organizations' Support for Sponsored Research 1996/1997 to 2000/2001

FIGURE 3

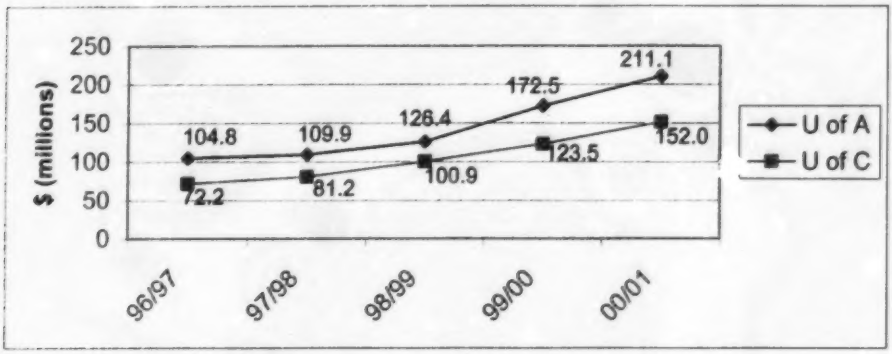


Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the VP, Academic.

- The total level of funding provided by the community and business sectors to Alberta universities continues to grow, with these sources making up a combined total of about $104.0 million or 28 percent of total sponsored research funding.
- Industry almost doubled its investment in sponsored research over the past five years, from $30 million to $59.5 million.
- The non-profit sector has increased its sponsored research funding to universities by 50.8 percent over the past five years to $44.5 million.

Sponsored Research Revenue at Individual Universities 1996/1997 to 2000/2001

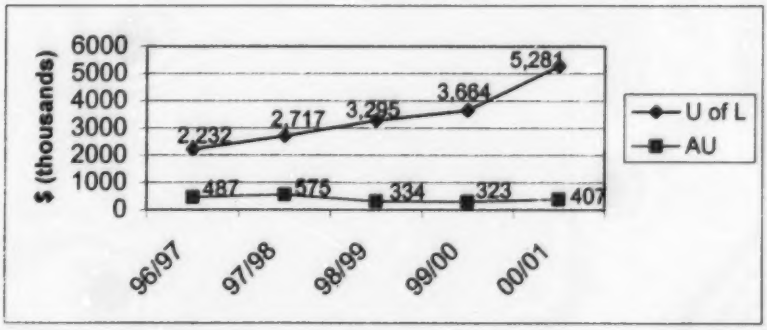
FIGURE 4A



Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services.

- In the last five years, total sponsored research funding from all sources to the University of Alberta and University of Calgary has doubled. This equals an additional $106.3 million in 2000-2001 over the 1996-1997 level for research at the University of Alberta and $79.8 million at the University of Calgary.
- The University of Alberta received $211.1 million in funding in 2000-2001, a 22.4 percent increase from the previous year ($172.5 million). The University of Calgary received $152.0 million in funding in 2000-2001, a 23.1 percent increase from the previous year ($123.5 million).

FIGURE 4B



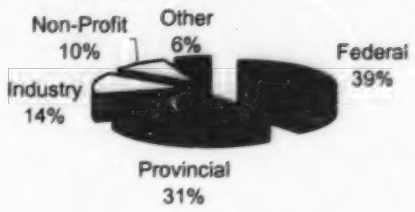
Sources: The University of Lethbridge: Financial Services; Athabasca University: Office of the Vice-President, Academic.

- The University of Lethbridge has been successful in consistently increasing its level of support. In 2000-2001 it received $5.3 million, a 44.1 percent increase from the previous year and a 136.6 percent increase since 1996-1997.
- Athabasca University received $407,000 in support of research in 2000-2001 and has consistently remained at this level over the past five years.

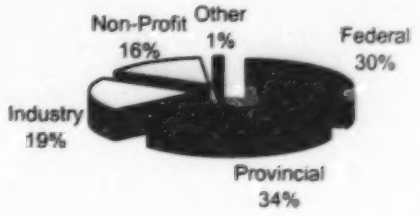
Sponsored Research Revenue at Individual Universities by Source 2000-2001

FIGURE 5

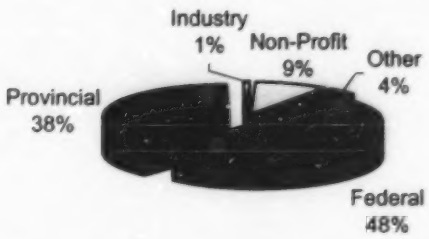
University of Alberta - $211.1 M



University of Calgary - $152.0 M



University of Lethbridge - $5.3 M



Athabasca University - $0.4 M

Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the Vice-President, Academic.

- Funding to the University of Alberta from provincial sources was $65.9 million, an increase of 16.6 percent from the previous year and federal funding was $82.8 million, an increase of 17.4 percent. Over five years, the University of Alberta has more than tripled the funding it receives from provincial sources and increased funds from federal sources by 67.3 percent.

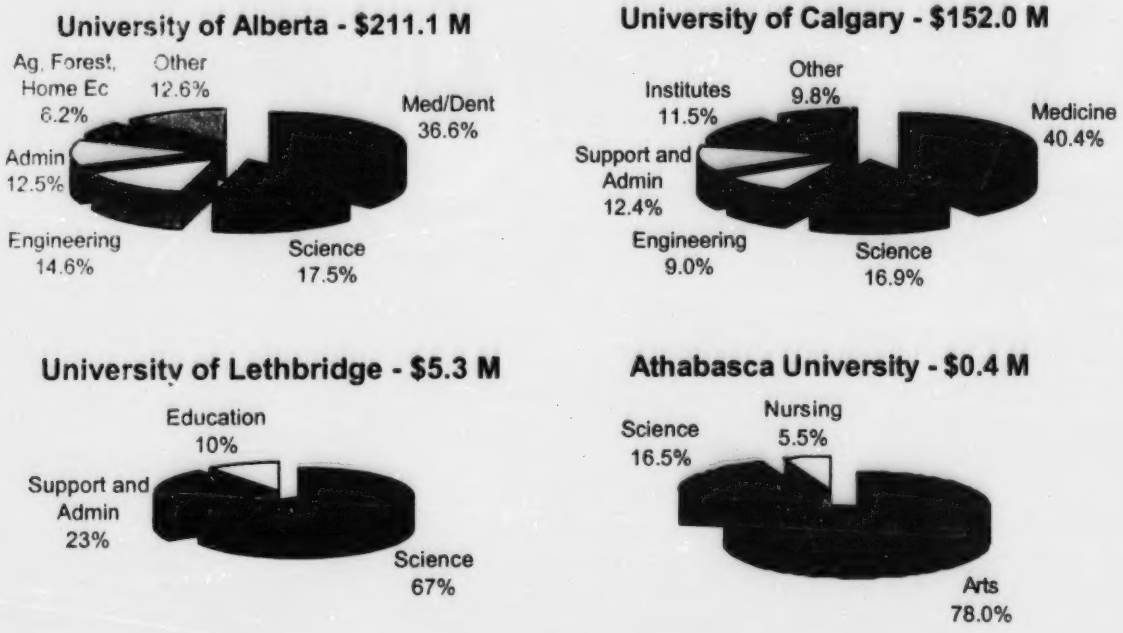
- Funding to the University of Calgary from provincial sources was $50.3 million, an increase of 46.2 percent and federal funding was $46.3 million, roughly the same as the previous year. Over a five-year period, the University of Calgary has increased funding received from provincial sources by almost three and a half times and from federal sources by 62.3 percent.

- Funding from provincial sources to the University of Lethbridge has quadrupled over the last five years up to the current level of $1,997,000. Funding from federal sources has increased 89.1 percent over the same five-year period.

- Athabasca University underwent fluctuations in levels of government funding. Such fluctuations in federal and provincial funding levels are expected in smaller universities, due to program cycles and completion and start time of funded research projects.

Distribution of Total Sponsored Research Revenue Within Alberta Universities 2000-2001

FIGURE 6



Sources: University of Albert a: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the VP, Academic

It should be noted that funding amounts vary by discipline, but the intensity of research in faculties is not necessarily commensurate with monetary allocations to faculties. For example, research activities in the Arts, Humanities and Social Sciences tend to be less costly to conduct; therefore, the intensity of such research is not necessarily reflected in monetary terms.

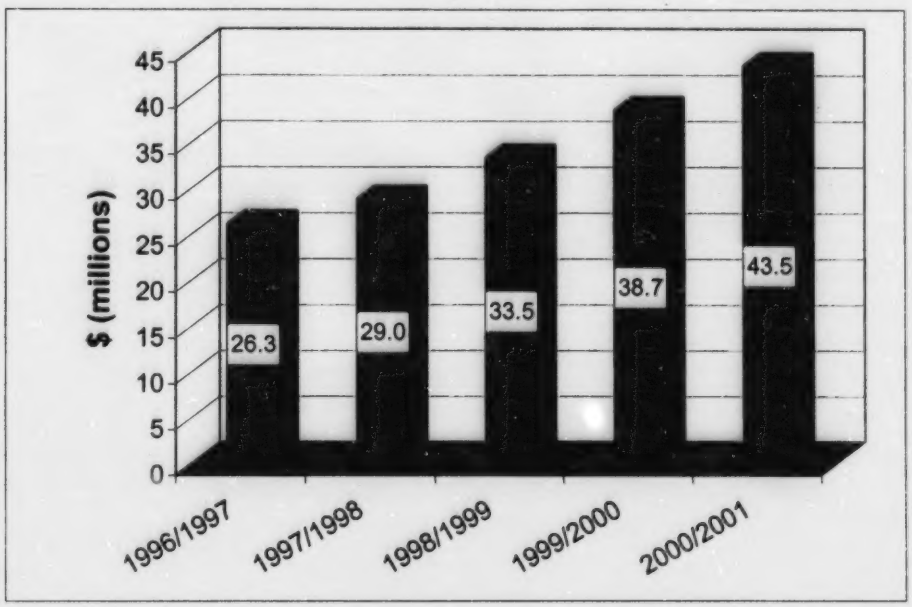
- The distribution of funding between faculties at the University of Alberta and the University of Calgary follows a consistent historical pattern. The largest proportion of research funding is secured by the Faculties of Medicine (36.6 percent at the University of Alberta and 40.4 percent at the University of Calgary), followed by the Faculties of Science (17.5 percent at the University of Alberta and 16.9 percent at the University of Calgary) and by the Faculties of Engineering (14.6 percent at the University of Alberta and 9.0 percent at the University of Calgary).

- The proportional allocation of research funding to faculties at the University of Lethbridge also follows a consistent historical pattern, the greatest share of funding being secured by the Faculty of Science at 67 percent in 2000-2001.

- Athabasca University has the majority of sponsored research revenue, 78 percent, in the Faculty of Arts.

Alberta Heritage Foundation for Medical Research (AHFMR)
1996/1997 to 2000/2001

FIGURE 7



Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services.

- In the last five years AHFMR support to Alberta's universities has increased by 65.6 percent, to $43.5 million from the 1996-1997 level of $26.3 million.
- The AHFMR has provided $171 million in sponsored research to Alberta's universities over the past five years.

Commercialized Research Revenue 2000-2001

The University of Alberta and the University of Calgary generate funding through the activities of their respective technology transfer organizations, the Industry Liaison Office for the University of Alberta and University Technologies International Inc. for the University of Calgary. The impact of university research is reflected in the successes of these organizations in the growing number of licenses generating revenue, royalty revenues, and spin-off companies. These successes give an indication of the impacts of university research as it is applied and transferred to business and industry.

The University of Alberta

With the help of the Industry Liaison Office, the University of Alberta had the following commercialization achievements in 2000-2001:

- 53 new inventions were disclosed;
- 93 patent applications were filed or continued;
- 17 patents were issued;
- 182 licenses, options or agreements were signed;
- 8 new spin-off companies were formed;
- 1148 research agreements were executed; and
- $7.6 million in licensing revenues.

Source: "Research Works", University of Alberta, Office of the VP Research, 2001

The University of Calgary

The University of Calgary's wholly owned technology transfer company, University Technologies International Inc. (UTI), continues to enable the University of Calgary to rank among the top Canadian universities generating royalty revenues from licensed technologies. In 2000-2001, UTI distributed $980,000 in royalties.

In addition, UTI attracted $301,573 in Product Development Agreements to the University of Calgary and contributed $45,000 directly to post-graduate fellowships. It also made a one-time donation of $300,000 to the University of Calgary.

Also in 2000-2001, UTI:

- executed 29 new deals;
- created three start-up companies from University of Calgary technologies;
- had 119 licenses generating revenue from its portfolio of more than 320 patents; and
- had 22 patents issued.

Through a formal letter of agreement between the University of Lethbridge and University Technologies International Inc., University of Lethbridge researchers are able to access UTI's technology commercialization services.

Source: UTI, University of Calgary

Research Revenue from Investment Earnings, Networks of Centres of Excellence, and Clinical Trials 2000-2001

Reporting Standards

- Alberta universities follow common approaches to most of their reporting. However, there are a number of reporting differences between universities, including investment earnings (primarily endowment) allocated to research expenditure, Networks of Centres of Excellence (NCE) revenue and clinical trials funding.

- Differing situations at the University of Alberta and the University of Calgary make reporting these three sources in the same manner particularly difficult. The explanatory notes and revenues recorded below have been included in this report to ensure that this report is as inclusive of all research revenue as possible and to allow for a comparable overview of the significant revenues derived from these three sources at the University of Alberta and the University of Calgary.

The University of Alberta

Investment Earnings from Endowments

- In 2000-2001, investment earnings from endowments totaling $23,669,000 were allocated for research spending but are not included as Sponsored Research Revenue.

Networks of Centres of Excellence (NCEs)

- The 2000-2001 Sponsored Research Revenue Report includes net University of Alberta revenue only. The net NCE revenue in 2000-2001 was $5 million. This amount is understated, as the Research Revenue Schedule in the University's Financial Statements does not break down any revenue received in amounts less than $50,000. These smaller amounts are included in the "Other" category of the Sponsored Research Funding Revenue table (Table 1, page 14).

Clinical Trials

- Virtually all funds for clinical trials are received, held and administered by the Capital Health Authority, with a small portion administered by the Alberta Cancer Board.

- Revenues for clinical trials reported by the Capital Health Authority and Alberta Cancer Board bring the total estimated clinical trials revenue for the University of Alberta to $15 million for 2000-2001. This revenue is not included in the Sponsored Research Revenue table.

The University of Calgary

Investment Income

- In addition to the $152 million in sponsored research funding received during the year ending March 31, 2001, the University of Calgary allocated $21 million of investment income to research activities.

Networks of Centres of Excellence (NCEs)

- The University of Calgary is responsible for administering a Network of Centres of Excellence (NCE) that provides grants to researchers at universities across Canada. Funding for the NCE is provided by the Natural Sciences and Engineering Research Council (NSERC) and the Canada Institutes for Health Research (CIHR).

- Of the $5.6 million in funding received for the NCE, $2.2 million is included in the sponsored research total while $3.5 million is not included as sponsored research.

Clinical Trials

- The University of Calgary has entered into an agreement with the Calgary Regional Health Authority with respect to the administration of industry sponsored, patient-based clinical research. Under this agreement, the researcher has the option of administering the financial resources of each individual clinical trial through the financial system of either the University or Regional Health Authority, regardless of the physical location of where the clinical trial is held. To date, the majority of these clinical trials are administered through the University's financial system.

- Total clinical trial revenue for 2000-2001 is $8.8 million and is included as sponsored research revenue.

TABLE 1: Sponsored Research Funding Revenue (in thousand dollars)

SOURCES		RECIPIENT	1998-1999	1999-2000	2000-2001
Federal Gov't	NSERC	Alberta	25,719	31,374	35,600
		Calgary	13,050	17,832	16,614
		Lethbridge	1,189	1,407	1,804
		Athabasca	29	9	8
	SSHRC	Alberta	2,786	5,428	5,611
		Calgary	1,157	2,916	3,662
		Lethbridge	73	139	141
		Athabasca	81	71	41
	MRC (CIHR)	Alberta	16,887	19,170	23,277
		Calgary	12,345	14,041	18,914
		Lethbridge	143.5	227	226
		Athabasca	0	0	0
	CFI	Alberta	585	8,133	5,696
		Calgary	1,093	6,378	2,510
		Lethbridge	0	150	0
		Athabasca	0	0	0
	OTHER	Alberta	7,090	6,416	12,597
		Calgary	3,543	4,908	4,573
		Lethbridge	302	220	359
		Athabasca	97	108	92
	Subtotal	Alberta	53,069	70,523	82,783
		Calgary	31,187	46,076	46,274
		Lethbridge	1,707.5	2,143	2,530
		Athabasca	207	189	140
		All	**86,171**	**118,931**	**131,727**
Alberta Gov't	AHFMR	Alberta	17,207	20,330	22,798
		Calgary	16,064	17,780	20,126
		Lethbridge	220	548	544
		Athabasca	0	0	0
	I&S and ASRA*	Alberta	2,442	9,543	26,960
		Calgary	8,976	5,988	13,508
		Lethbridge	180	13	322
		Athabasca	47	45	208
	REE**	Alberta	1,926	1,108	3,862
		Calgary	1,309	1,055	2,270
		Lethbridge	210	210	420
		Athabasca	55	85	55
	OTHER	Alberta	11,949	16,958	12,279
		Calgary	2,394	7,381	14,439
		Lethbridge	358	131	711
		Athabasca	21	0	0
	Subtotal	Alberta	35,166	56,493	65,899
		Calgary	29,163	34,437	50,344
		Lethbridge	968	902	1,997
		Athabasca	123	130	263
		All	**65,440**	**91,962**	**118,503**
Other Gov't		Alberta	2,538	6,436	9,717
		Calgary	884	1,071	1,911
		Lethbridge	83	88	66
		Athabasca	0	0	0
		All	**3,505**	**7,594**	**11,694**
Industry		Alberta	22,427	22,143	29,863
		Calgary	21,740	20,873	29,628
		Lethbridge	303.5	110	47
		Athabasca	4	4	4
		All	**44,475**	**43,130**	**59,532**
Non-Profit		Alberta	12,325	15,611	20,400
		Calgary	15,887	20,361	23,616
		Lethbridge	191	193	501
		Athabasca	0	0	0
		All	**28,403**	**36,165**	**44,517**
Other		Alberta	823	1,310	2,450
		Calgary	2,074	634	251
		Lethbridge	42	228	140
		Athabasca	0	0	0
		All	**2,939**	**2,172**	**2,841**
TOTAL **Note: Totals may not add due to rounding**		Alberta	126,368	172,515	211,102
		Calgary	100,935	123,452	152,023
		Lethbridge	3,295	3,664	5,261
		Athabasca	334	323	407
		All	**230,932**	**299,954**	**368,813**

*Includes IIPP, S&R Fund, ISRIP, ASRIP, and other investments from I&S/ASRA
**2000/2001 REE data includes dollars not included in 1999/2000 data

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Note: Funds received through I&S/ASRA are reported on a *modified cash-flow basis* – revenues cannot be reported until all partner funding is secured.

Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the VP, Academic

TABLE 1: Sponsored Research Funding Revenue (in thousand dollars)

SOURCES		RECIPIENT	1998-1999	1999-2000	2000-2001
Federal Gov't	NSERC	Alberta	25,719	31,374	35,600
		Calgary	13,050	17,832	16,614
		Lethbridge	1,189	1,407	1,614
		Athabasca	29	9	6
	SSHRC	Alberta	2,788	5,428	5,611
		Calgary	1,157	2,916	3,662
		Lethbridge	73	139	141
		Athabasca	81	71	41
	MRC (CIHR)	Alberta	16,887	19,170	23,277
		Calgary	12,345	14,041	18,914
		Lethbridge	143.5	227	226
		Athabasca	0	0	0
	CFI	Alberta	586	8,133	5,696
		Calgary	1,093	6,378	2,510
		Lethbridge	0	150	0
		Athabasca	0	0	0
	OTHER	Alberta	7,090	6,418	12,597
		Calgary	3,543	4,908	4,573
		Lethbridge	302	220	359
		Athabasca	97	108	92
	Subtotal	Alberta	53,069	70,523	82,783
		Calgary	31,187	46,076	46,274
		Lethbridge	1,707.5	2,143	2,530
		Athabasca	207	189	140
		All	**86,171**	**118,931**	**131,727**
Alberta Gov't	AHFMR	Alberta	17,207	20,330	22,798
		Calgary	16,064	17,780	20,126
		Lethbridge	220	548	544
		Athabasca	0	0	0
	I&S and ASRA*	Alberta	2,442	9,543	26,960
		Calgary	8,976	5,968	13,508
		Lethbridge	180	13	322
		Athabasca	47	45	208
	REE**	Alberta	1,926	1,108	3,862
		Calgary	1,309	1,055	2,270
		Lethbridge	210	210	420
		Athabasca	55	85	55
	OTHER	Alberta	11,949	16,958	12,279
		Calgary	2,394	7,381	14,439
		Lethbridge	358	131	711
		Athabasca	21	0	0
	Subtotal	Alberta	35,186	56,493	65,899
		Calgary	29,163	34,437	50,344
		Lethbridge	968	902	1,997
		Athabasca	123	130	263
		All	**65,440**	**91,962**	**118,503**
Other Gov't		Alberta	2,538	6,435	9,717
		Calgary	884	1,071	1,911
		Lethbridge	83	88	66
		Athabasca	0	0	0
		All	**3,505**	**7,594**	**11,694**
Industry		Alberta	22,427	22,143	29,853
		Calgary	21,740	20,873	29,628
		Lethbridge	303.5	110	47
		Athabasca	4	4	4
		All	**44,475**	**43,130**	**59,532**
Non-Profit		Alberta	12,325	15,611	20,400
		Calgary	15,887	20,361	23,616
		Lethbridge	191	193	501
		Athabasca	0	0	0
		All	**28,403**	**36,165**	**44,517**
Other		Alberta	823	1,310	2,450
		Calgary	2,074	634	251
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		Athabasca	0	0	0
		All	**2,939**	**2,172**	**2,841**
TOTAL **Note: Totals may not add due to rounding**		**Alberta**	**126,368**	**172,515**	**211,102**
		Calgary	**100,936**	**123,452**	**152,023**
		Lethbridge	**3,295**	**3,664**	**5,261**
		Athabasca	**334**	**323**	**407**
		All	**230,932**	**299,954**	**368,813**

*Includes IIPP, S&R Fund, ISRIP, ASRIP, and other investments from I&S/ASRA

**2000/2001 REE data includes dollars not included in 1999/2000 data

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Note: Funds received through I&S/ASRA are reported on a *modified cash-flow basis* – revenues cannot be reported until all partner funding is secured.

Sources: University of Alberta: Research Grants Office; the University of Calgary: Financial Services; The University of Lethbridge: Financial Services; Athabasca University: Office of the VP, Academic

TABLE 2: Alberta Science and Research Investments Program 2000-2001 Supported Proposals

#	Title	Institution	TPC	ASRIP Award
Research Infrastructure				
01-038	Magnetic Resonance Imaging for the Assessment of Stroke and Other Neurological Disease	U of A	$ 713,663	$ 355,000
01-039	Electrospray Ionisation - High Field Assymmetric Waveform Ion Mobility Spectrometry - Tandem Mass Spectrometry (ESI-FAIMS-MS/MS)	U of A	$ 494,036	$ 197,614
01-041	Solid-State Nuclear Magnetic Resonance Facility	U of A	$ 1,400,000	$ 650,000
01-045	Bamfield Marine Station - Infrastructure For Studies In Biodiversity and Bio-environmental Fluid Dynamics	U of A	$ 3,046,755	$ 300,000
01-047	Understanding Land Cover Through a Strategic Infrastructure Development	U of A	$ 898,478	$ 350,000
01-048	Precision Ranching	U of A	$ 1,137,300	$ 350,000
01-049	Meanook Biological Research Station Enhancement Proposal	U of A	$ 670,000	$ 287,500
01-050	Molecular Characterization of Cancer Cell Populations by Single Cell and Living Cell Analysis	U of A	$ 1,782,244	$ 533,000
01-053	Cardiovascular Ion Channel Gene Therapy Unit (CIGNET)	U of A	$ 800,000	$ 320,000
01-055	Geochemical Analytical Facility	U of A	$ 667,100	$ 295,000
01-056	Biotelemetry Analysis System: Infrastructure for Cumulative Effects Assessment	U of A	$ 856,408	$ 200,000
01-059	Infrastructure for Surface Mining Research Laboratory	U of A	$ 2,000,000	$ 660,000
01-060	Infrastructure for Deposition and Characterization of Combinational Arrays of Thin-Film Inorganic and Opto-Electronic Devices	U of A	$ 1,222,275	$ 540,000
01-061	Electronic Data Infrastructure Upgrade	U of A	$ 459,079	$ 200,000
01-063	Campus Alberta Research Data Centres	U of A	$ 1,370,638	$ 685,316
01-066	Network Enabled Smart Robotic Systems	U of A	$ 2,029,683	$ 300,000
01-070	Whole Body Calorimetry	U of A	$ 770,000	$ 350,000
01-102	Gene Therapy Initiative the University of Calgary	U of C	$ 2,366,142	$ 600,000
01-103	Creation of a Multidisciplinary 3 Dimensional Morphometrics Centre	U of C	$ 475,970	$ 235,624
01-105	Nutrition, Genetics and Human Performance	U of C	$ 8,527,202	$ 3,256,247
01-111	Multicomponent Seismic data Acquisition System	U of C	$ 3,399,512	$ 1,160,000
01-112	Advanced Space Instrument Facility	U of C	$ 598,500	$ 299,000
01-113	Language Research Facility	U of C	$ 1,077,750	$ 430,000
01-120	Genetics and Developmental Biology Laboratories	U of C	$ 1,066,900	$ 190,000
01-123	Integrated Centre for Advanced Materials Characterization	U of C	$ 1,700,373	$ 490,000
01-125	Research Capability Upgrade of the Rothney Astrophysical Observatory	U of C	$ 552,000	$ 175,000
01-151	Creation of a Research Institutes for the Study of Supply Chain Collaboration	AU	$ 2,423,000	$ 210,000
01-159	Molecular Biology Infrastructure and Cell/Tissue Culture Facilities for Novel BioChemical Engineering Research	U of C	$ 511,400	$ 255,700
01-162	Phase I Clinical Trials and Research Unit	U of A	$ 363,932	$ 152,500
Enabling Research Application and Technology Transfer				
01-004	Innovation and Technology Development Office (ITDO)	SAIT	$ 2,345,128	$ 225,000
01-008	Commercialization of Composting Technology	Olds College	$ 335,000	$ 133,400
01-024	Development and Verification of Techniques for Locating Harmonic Sources in Electrical Systems	U of A	$ 387,500	$ 95,000
01-025	Optimization of Catalysts for Production of Polyethylene	U of A	$ 818,000	$ 150,000
01-027	Creating a Network For an Alberta-Wide Experience Base of Software Best Practices	U of A	$ 1,239,165	$ 300,000
01-028	LINC: Learning and Innovation in New Company Creation	U of A	$ 1,378,000	$ 300,000
01-036	Laser Atmospheric Pollution Measurement	U of A	$ 1,102,000	$ 252,000
01-078	Energy Efficiency Innovations for Buildings	U of C	$ 147,400	$ 73,700
01-079	Research Transition Facility	U of C	$ 3,825,000	$ 1,400,000
01-127	Infrared Water Vapour Monitor	U of L	$ 260,000	$ 110,000
01-128	Protecting Intellectual Property and Maximizing the Commercial Potential of Our Discoveries	U of L	$ 462,000	$ 216,000
01-173	Combined Enhanced Biodegration of Municipal and Agricultural Waste	U of A	$ 380,000	$ 150,000
Science Awareness and Promotion				
01-019	Alta: A Very Large Area Time Coincidence Cosmic Ray Telescope	U of A	$ 567,400	$ 300,000
01-072	Alberta Science Email Mentoring Project for Girls: SCIberMentor	U of C	$ 269,250	$ 179,250
01-076	Science Awareness on Biotechnology for Albertans	U of C	$ 338,561	$ 30,000
01-150	Science Outreach-Athabasca	AU	$ 64,000	$ 48,000